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# news letter

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Vol. I.

February, 1939

No. 2.

Dr. Henry G. Knight addressed the Washington (D.C.) Chapter of the American Institute of Chemists at a meeting of the Society in the Wardman Park Hotel on January 27. The subject of his address was "The Composition of the Chemist". Dr. Knight said in part: "The brightest prospect that I see for chemists is broadened research work. The present trend in the Department of Agriculture is one example of this. Research is slow and for the future, but research in many directions is sure. Each successful venture into the unknown opens up new fields for development and new prospects for investigation. The farther we stretch the circle of our knowledge, as was pointed out by thinkers long ago, the more contacts we have with the unknown and that is one of the most hopeful things in a world that wants to be busy."

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At the monthly meeting and dinner of the Washington Section of the American Society of Agricultural Engineers on February 15, S. H. McCrory gave an illustrated talk on features of his trip to Europe last fall. He described the flax-processing industry of Ireland and Belgium, the hay driers used in England, and the marsh and sand dune reclamation work of England and Holland.

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## Cotton Ginning Work

Chas. A. Bennett, Engineer in Charge at the Cotton Ginning Laboratories, Stoneville, Miss., returned from a two weeks trip to Washington where plans for spring activities in ginning and baling were outlined. An allocation of Bankhead-Jones research funds made jointly to the Bureau of Agricultural Economics and the Bureau of Agricultural Engineering for uniform quality in cotton packaging and baling marks the beginning of a very important series of practical investigations with a view to improving the uniformity, quality and appearance of American cotton bales together with the direct compression of cotton to high density at the gins if this proves to be practicable.

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On February 9 Mr. Bennett and John W. Wright of the Bureau of Agricultural Economics made an advisory trip to Dallas, Texas, in connection with the surveys of American compresses which is now under way by a selected staff of economists and technologists.

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A delegation of cotton farmers and ginners from the large plantations of northeastern Louisiana under the leadership of G. A. Gerdes, Louisiana State Cotton Ginning Specialist, visited the Cotton Ginning



Laboratories at Stoneville, Miss. on February 13 to obtain first hand information on modernization of cotton gins and improved methods of harvesting and handling. The close cooperation between the Laboratories and the Federal and State Extension Services has had remarkable success in Louisiana during the past two years. The Louisiana Extension work is under the direction of Dr. J. W. Bateman whose staff has built up a great deal of interest in its efforts to improve Louisiana cotton.

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The all-steel research building being constructed with W.P.A. funds for the Cotton Ginning Laboratories at Stoneville, Miss. is rapidly nearing completion and will comprise the fourth large building of the group. The overall dimensions of this building are 64 - 120 ft.

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Research tests in ginning the very long staple Sea Island cottons with both saw and roller gins have been under way during the past month. Although it has been contended for many years that saw gins of the Whitney type could not handle the Sea Island cotton, it was found at the Laboratories that the cotton could be ginned but not without considerable loss to the farmer in shortening the staple and causing imperfections and objectionable damage to fiber. The roller gins, which previously used Walrus hide covering, have been operating satisfactorily at the Laboratories with a covering made of rubber packing and cotton. New methods of doffing for roller gins developed at the Laboratories are giving promise of improved staple and grade with material benefit to the Sea Island cotton regions of the Southeastern States.

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#### Industrial Farm Products Research Division

C. E. Senseman, Acting Chief, visited the U. S. Regional Soybean Industrial Products Laboratory on January 6-7, and also the Agricultural By-Products Laboratory, Ames, Iowa., from January 9-12.

Dr. Reid T. Milner, Acting Director of the U. S. Regional Soybean Industrial Products Laboratory, Urbana, Ill., arrived in Washington on February 15 for an official visit. Dr. Milner left Washington on February 17 for Bethlehem, Pa., to deliver a talk before the Lehigh Valley Section of the American Chemical Society at Lehigh University.

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Dr. E. Berry Smith, Chief Chemist of the J. C. Hutton Company, Brisbane, Australia, visited the Hide and Leather Section of this Division, on February 1. Dr. Smith is visiting the various laboratories in the United States which are conducting research along bacteriological lines of interest to meat packers. He was particularly interested in discussing the methods developed by the laboratories of the Bureau of Chemistry and Soils for the cultivation of halophilic bacteria.

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P. H. Groggins addressed a class at the Brooklyn Polytechnic Institute on January 11 and 18, on Industrial Organic Synthesis. He is scheduled to deliver a series of eight lectures before various sections of the American Chemical Society in the Southeastern States.



His itinerary includes Blacksburg, Va., Kingsport, Knoxville, and Nashville, Tenn., Wilson Dam and Birmingham, Ala., Atlanta, Ga., and Raleigh, N. C. He will speak on Industrial Organic Synthesis with particular emphasis on the Friedel and Crafts reaction and the preparation of amino compounds.

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#### Chemical Engineering Research Division

Dr. David J. Price went to Atlantic City on January 20 to attend the winter meeting of the Board of Directors of the National Fire Protection Association, of which he is Vice-President. He joined Mr. Brown and Mr. Edwards of the same Division in New York on January 24, for the annual meeting of the Dust Explosion Hazards Committee of the National Fire Protection Association.

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Dr. Price went to Reading, Pa., on January 28 to address the Berks County Firemen's Association of Pennsylvania on dust explosion and fire prevention matters. From Reading he went to Pottsville and Philadelphia for dust explosion and farm fire conferences.

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In cooperation with officials of the Bureau of Mines, in Washington and in Pittsburgh, H. R. Brown and P. W. Edwards gave considerable time to the preparation of codes for the prevention of dust explosions in the manufacture of aluminum bronze powder and in sulphur-grinding operations. The aluminum code will be presented to the annual meeting of the National Fire Protection Association in May for final adoption, and the sulphur dust code will be presented for tentative adoption. This is the first time in the history of aluminum bronze powder manufacture that a code has been devised for protection against explosions and fires in the handling of that product.

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Harry E. Roethe went to Worcester, Mass., on January 6 where he spoke at the Conference on Fire Fighting in the Country. The address which he presented, "Hay Fires that Start Themselves," has created added interest in the subject of spontaneous heating and ignition of farm products.

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Special interest is being shown in the latest recommendations of the Bureau on practical methods and means of preventing spontaneous heating and ignition of hay, and of handling mows of heating hay.

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Byron J. Culp, formerly a member of the Division staff, has returned to assist in the dust explosion and fire prevention work of that Division.

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With the greatly increased engineering and drafting force in the Division, fine progress is being made in the Regional Laboratory construction program. An interesting model showing the layout of a unit of the Regional Laboratories has been constructed and is on display in Room 2110-A of the Chemical Engineering Research Division.

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A film strip "Dust Explosion Hazards in Fire Fighting" has been prepared to illustrate hazards that are encountered by firemen when called upon to fight fires in industrial plants.

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Naval Stores Research Division

C. F. Speh visited the plant of Johnson and Johnson, New Brunswick, N.J. on January 16, to confer on use of naval stores. He also visited the Sharples Corporation at Philadelphia to discuss the use of the centrifuge in gum purification, and Fels and Company, Philadelphia, to confer on use of rosin. On January 17, Mr. Speh and W. C. Smith visited the Hercules Powder Company, Wilmington, Del. to attend a conference on crystallization of rosin.

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Dr. W. W. Skinner, Assistant Chief of the Bureau, F. L. Teuton, in charge of Information and Editorial, and C. F. Speh in charge of the Naval Stores Division spent from January 28 to February 16 looking over the Bureau's field stations in the Southeast.

They attended the meeting of Southern Agricultural Workers in New Orleans, looked over the location for the Southern Research Laboratory, inspected the new sugarcane laboratory at Houma, La., and made a great many contacts in connection with the Bureau's work in the South. A number of the large pulp and paper mills were visited on this trip, and valuable information obtained relative to the use of various sizing materials in the manufacture of paper from Southern pines. Quite a bit of information was obtained on the production of ramie, a promising Southern fiber plant, now being produced at the Everglades Agricultural Experiment Station, Belle Glade, Florida, and at the Department of Agriculture's Plant Introduction Garden south of Miami.

Many stops were made to get information on the production and distribution of naval stores, and a complete set of pictures were made by Mr. Teuton showing the step by step process of facing a pine tree.

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A. R. Shirley, Georgia Naval Stores Cooperative Agent, attended the meeting of the Southern Agricultural Workers at New Orleans, La. February 1 to 3, inclusive. and presented a paper entitled "Turpentine Farming" before the Forestry Section.

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Dr. S. Palkin attended the meetings of the American Association for the Advancement of Science at Richmond, Va. December 27 and 28, 1938. Dr. Palkin took part in a symposium on natural resins and presented a paper, "Stable Resin Acid Derivatives from Pine Oleoresin."

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Division of Structures

The manuscript for a book of Plans of Farm Buildings for Southern States has been completed and is now being reviewed by the Agricultural Colleges of the 12 cooperating States. This book will present attractive sketches of buildings selected by representatives of the State Extension



Services, comprising recommended designs generally applicable to the South. Arrangements have been made for each of the cooperating State Extension Services of the region to furnish to farmers at low cost the working drawings needed for erecting the buildings. This plan book is to be one of a series covering the various regions. One for the Northeastern States was issued last year and one for the Western States is about to come from the press.

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The survey of farm storage of corn has been broadened to include the non-commercial corn-producing areas of the east and south. W. R. Swanson, who has been stationed at Ames, Iowa is making a trip through corn producing areas in Maryland, Virginia, the Carolinas, Georgia, Alabama, Tennessee, Mississippi, Louisiana, Texas, Arkansas, and Missouri, to obtain data on corn storages. Observations will be made of the suitability of corn storage structures and of the condition of stored corn in these areas. It is expected that Mr. Swanson will return to Washington in April.

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J. B. Townsend, Jr., has been appointed Junior Architect and reported for duty at Athens, Georgia, on January 23. For the present he will assist J. W. Simons in conducting tests on the experimental houses at Athens.

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Mr. Simons attended the meeting of the southern section of the American Society of Agricultural Engineers at New Orleans, February 1, 2, and 3, and presented a paper entitled "Farmhouse Research Pointers" based on his studies at Athens.

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J. R. Dodge, members of the staff of the College of Agriculture, University of Wisconsin, and the farmers who are cooperating on the Farm Housing Project, assisted J. P. Ditchman, Chairman of the Rural Lighting Committee, Illuminating Engineering Society, in obtaining photographs of lighting in the farmhouses that have been remodeled in the farm housing project. Selections from these photographs are to be used for illustrating the bulletin on lighting the farm home being prepared in cooperation with the Bureau of Home Economics and the Illuminating Engineering Society. The manuscript has been completed and is now being circulated among members of the Rural Lighting Committee.

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Wallace Ashby, G. A. Cumings, and J. R. McCalmont, attended a conference at New Brunswick, New Jersey, on February 2, to plan a research program for the coming season to deal with engineering problems in connection with the making and storage of silage from immature grass and forage crops. This is part of a general research program on immature crop silages that is being carried on by the New Jersey Experiment Station in cooperation with the Cornell Experiment Station and others. The conference was attended by representatives of the National Silo Manufacturers Association, the Portland Cement Association, and a manufacturer of phosphoric acid as well as by representatives of the Agricultural Engineering and Dairy Departments of Rutgers University and the Bureau of Agricultural Engineering.

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A portable wheat drying machine, incorporating improvements, suggested by tests of an experimental drier in 1938, is under construction at Arlington Farm. Fuel oil or kerosene will be used as fuel. It is designed to remove from 2 to 3 percent moisture from wheat containing 16 percent moisture at the rate of 100 bushels per hour.

A. D. Edgar stationed at Cadillac, Michigan, is making a careful check of the amounts of heat reaching potato storages from the ground and of various heat losses from the storages. These losses are closely related to the control of moisture in the house. At Mr. Edgar's suggestion Mr. Johnson of Edmore, Michigan, installed ceiling drip and drain pans over two bins in his storage house which had been previously wet by drip from the ceiling. This installation has allowed the potatoes to dry and Mr. Johnson reports there is enough water dripping from the corrugated sheets to fill a 10-quart pail each day. Had 10 quarts of water been removed by ventilation it would have removed approximately 20,000 B.t.u. of heat per day instead of possibly 400 removed when the pail is dumped.

Mr. Edgar was on the Farmers' Week program at Michigan State College January 30 to February 3, for a discussion of potato storage problems. He exhibited a working model to show the effect of design and construction of a potato storage on the phenomenon of condensation of moisture on the wall and ceiling surfaces. He estimates that the model was viewed by at least 1,000 farmers and that he discussed potato storage problems with more than 200.

On account of the increasing market demand for washed potatoes, handling procedure in the Fargo, North Dakota, shipping area is being modified. Mr. Edgar recently visited the Fargo station and he and Mr. Cropsey had a conference with shippers regarding this problem. The principal drawbacks to washing are the spreading of infection and the difficulty of drying the washed potatoes. It is hoped that satisfactory economical methods of drying can be worked out.

Mr. Edgar recently conferred at the Agricultural College, Lincoln, Nebr., with Prof. H. O. Werner and other members of the Horticulture Department and Professor E. E. Brackett, Agricultural Engineering Department, in regard to potato storage problems in Nebraska.

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#### Fertilizer Research Division

Dr. C. H. Kunsman presented a paper "Agricultural Physics", at a symposium on The Physicist in the Government Service held at the National Bureau of Standards, December 30, under the auspices of the American Association of Physics Teachers.

Drs. O. R. Wulf and E. H. Melvin presented a paper, "Band Spectra in Nitrogen at Atmospheric Pressure - A Source of band Spectra Excitation", before the Annual Meeting of the American Physical Society at the Bureau of Standards on December 28.



Drs. A. K. Brewer and A. Bramley presented a paper on "A Thermo-gravitational Method for the Operation of Gases and Isotopes" before the Annual Meeting of the American Physical Society at the Bureau of Standards on December 27, 1938.

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K. D. Jacob attended the hearings of the Joint Congressional Committee to Investigate the Adequacy and Use of the Phosphate Resources of the United States held at Wilson Dam, Alabama, November 21 and 22; Knoxville, Tennessee, November 24 and 25; and Lakeland, Florida, November 28 and 29.

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Dr. W. H. Ross attended the New Orleans meeting of the Southern Agricultural Workers on February 1 to 3 and presented a paper by A. L. Mehring, entitled "The Magnesium Content of Fertilizers, 1850 to 1935", and one by himself and Lola S. Deming entitled "The Influence of Fertilizers on Crop Yields in the United States by Decades".

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#### Division of Mechanical Equipment

On February 4 Messrs. S. H. McCrory and R. B. Gray conferred at Denver, Colo. with N. R. McCreery, Manager of the Great Western Sugar Company of Denver, member of the U. S. Sugar Beet Association Advisory Committee, on Sugar Beet Machinery Development; Professor H. B. Walker, head of the Agricultural Engineering Department of the University of California and E. M. Mervine, leader of the Bureau's Sugar Beet Machinery project, relative to future plans for this project. The development of a practical sugar-beet harvester is the major need at the present time although the problems of protection of beets from sugar loss while in the dumps awaiting processing, the refinement of single seed-ball planters and blocking and thinning equipment are important. Considerable progress has already been made with the harvester, and the two types of planter developed by the Bureau show considerable promise. The use of a satisfactory single seed-ball planter will be of great assistance in blocking and thinning. A cross blocker has already been developed by the Bureau, but some interest by the growers appears to be manifested in the row blocker development.

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G. A. Cumings represented the Division at a conference February 2 in New Brunswick, N.J. on the study of green grass silage undertaken by the New Jersey Station, the Bureau of Agricultural Engineering, and several commercial agencies. The mechanical equipment phase of the project involves power, labor, and performance studies of representative types of harvesting machines and silo filling machinery including choppers, elevators, and preservative feeders. The use of green grass silage which is a recent practice has imposed a number of new requirements in connection with harvesting and processing machinery as well as silo construction.

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In the cotton production machinery project arrangements have been made for carrying on field tests of cotton planting methods, seedbed preparation methods and legume coverage methods in cooperation with the



Alabama Experiment Station. As much of this work as possible will be done on Experiment Station Farms.

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On February 7 and 8 the intermountain group of the American Society of Sugar Beet Technologists met at Fort Collins, Colo. There were representatives from Utah, Idaho, Montana, Wyoming, Nebraska, Colorado, and Arizona. E. M. Mervine outlined recent developments in sugar-beet machinery. This organization is an outgrowth of a practice instituted by Bureau representatives at Fort Collins several years ago of inviting in a small group of sugar-beet technologists for conferences.

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A series of plot plantings has been put in with four, single-seed-ball, sugar beet planters and with two conventional planters on the University Farm at Davis, Calif. A set of strip plantings has also been put in with the chain-feed single-seed planters on a commercial field which will be mechanically cross blocked and carried through to harvest without being finger thinned to singles. A large part of the commercial sugar-beet fields are already planted in that district, the planting starting around January 9, which is somewhat earlier than usual and two to three months ahead of the majority of last year's plantings.

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Frank Irons reports that a complete set of detailed plans, with instructions for constructing bait spreaders for grasshopper control, was sent by the Toledo office to the grasshopper control office at Minneapolis, Minn. These plans are being reproduced and sent out to all the various States and agencies carrying on grasshopper control activities.

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Orve K. Hedden has just completed a detailed report on the vapor spray work of the past year.

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E. M. Dieffenbach, in cooperation with the Agronomy and Soils Department, Utah Agricultural Experiment Station, has prepared plans and estimates for a number of units for sand culture. If constructed the units will be used by the Station for growth studies to determine the best time interval for cutting back perennial weeds to use up their root reserves.

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#### Food Research Division

On January 4, 1939, E. K. Nelson was the surprised recipient of a desk pen set commemorative of the completion of 30 years of service in the Bureau of Chemistry and its successor, the Bureau of Chemistry and Soils.

Mr. Nelson has rendered conspicuous service in the development of our fundamental knowledge of the chemistry of agricultural raw materials and products. His earliest work was on capsaicin, the pungent principle of capsicum and resulted in the establishment of the chemical constitution of this compound which has since been verified by investigators in other parts of the world. Another striking study was his



chemical investigation of the oil of chenopodium, followed by a series of publications on the various non-volatile acids of fruits and vegetables. In more recent years Mr. Nelson has not only conducted his work in the field of acids in fruits and vegetables but has made important contributions to our knowledge of pectin, hexuronic acid, and the composition of citrus oils. He is the author of 64 scientific papers on various organic subjects connected with plant material.

Mr. Nelson is recognized both here and abroad as an outstanding organic research chemist. His associates appreciate not only his high professional ability and attainments but his cooperativeness and willingness to give younger men the benefit of his long and varied experience. It is hoped that his prolific research activities will be available for many more years to come.

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Dr. H. E. Goresline left for Winter Haven, Florida, the latter part of December where, working with H. W. von Loesecke in charge of the Florida field station of the Division, he is conducting experimental work on the disposal of cannery wastes, in cooperation with the Florida Canners Association and the Florida State Board of Health.

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Upon receipt of a request from the Rio Grande Valley Mayors Association for assistance, Dr. Goresline was sent to the Valley for several weeks to cooperate with J. O. Heid, in charge of the Division's field station in Texas, in planning an attack on the question of cannery waste disposal which has become quite acute in Texas.

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H. H. Mottern, C. W. Eddy, and A. M. Neubert of the Pullman, Wash., station attended the meeting of the Northwest Canners Association in Portland, Oregon, the early part of January, where they displayed canned products developed through experimental work at the Pullman station. Other members of the Food Research Division attending this meeting were H. C. Diehl, J. A. Berry and H. Campbell of the Frozen Pack Laboratory at Seattle.

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Messrs. Campbell and Berry also attended the frozen food section of the 18th Annual Canners' and Fieldmen's School, Oregon State College, Corvallis, Oregon, February 6 to 18.

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Mrs. Helen F. Smart and George R. Fessenden represented the Food Research Division at the meeting of the American Association for the Advancement of Science at Richmond the latter part of December.

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#### Recent Appointments (Indefinite or Probationary)

|                         |   |                          |
|-------------------------|---|--------------------------|
| Sarah Dorothea Bollotin | Junior Clerk-Stenographer                       | Business admin.          |
| Edward L. Cox           | Agent (Madison, Wisc.)                          | Structures               |
| James Robt. Gregory     | Under Scientific Helper<br>(Urbana, Ill.) (wae) | Ind. Farm Prods. Res.    |
| Dolyer B. Hankins       | Laborer (Laurel, Miss.) (wae)                   | Carbohydrate Res. Div.   |
| Louis B. Howard         | Sr. Chem. (Peoria, Ill.)                        | Reg. Res. Lab (Northern) |



|                        |  |                       |
|------------------------|--|-----------------------|
| Arthur D. Hoffman      | Clerk  | Administration        |
| Wm. E. Kennel          | Under Scientific Helper<br>(Urbana, Ill.)(wae) | Ind. Farm Prods. Res. |
| Mrs. Marcella K. Marks | Junior Stenographer                            | Administration        |
| Thomas A. Marsh        | Agent (Blacksburg, Va.)                        | Structures            |
| Jos. B. Townsend, Jr.  | Agent (Athens, Ga.)                            | "                     |
| John B. Willis         | Agent (Arlington, Va.)                         | "                     |
| Arnold R. Wolfe        | Agent (Madison, Wisc.)                         | "                     |
| Kathryn M. Zukas       | Junior Stenographer                            | Plans and Service     |

Recent Appointments (Temporary)

|                           |   |                       |
|---------------------------|---|-----------------------|
| Corabel Bien              | Asst. Librarian   | Business Admin.       |
| Ruth Billings             | Junior Stenographer                                       | Structures            |
| Maurice Blau              | Chief Engineering Draftsman<br>(Mechanical)               | Plans and Service     |
| Mrs. Lillie C. Bryan      | Jr. Clerk-Typist  | Business Admin.       |
| Vincent B. Crane          | Sr. Engineering Draftsman<br>(Mechanical)                 | Plans and Service     |
| Bryon J. Culp             | Asst. Dust Expl. Prev. Engr.                              | Chem Engr. Res.       |
| Mrs. Myrtle G. Dent       | Jr. Clerk-Typist  | Business Admin.       |
| LaHoma C. Finney          | " " "   | " " "                 |
| Emily Grewe               | Assistant Chemist   | Food Research         |
| Ethel C. Griffin          | Jr. Clerk-Typist  | Business Admin.       |
| George W. Guther          | Asst. Mech. Engineer                                      | Plans and Service     |
| Mildred S. Hofer          | Jr. Clerk-Typist  | Business Admin.       |
| Claire A. Keimer          | Jr. Clerk-Typist  | " " "                 |
| Marye Louise Lauman       | " " "   | " " "                 |
| Frank H. Malice           | Asst. Civil Engineer                                      | Plans and Service     |
| Peter Thorp Montfort      | Sr. Research Agricultural<br>Engineer (College Sta. Tex.) | Rural Electrification |
| EVirginia Mott            | Junior Stenographer                                       | Plans and Service     |
| Mary Anne Mudd            | Asst. Clerk-Stenographer                                  | Business Admin.       |
| Edgar A. Rapp             | Assoc. Mech. Engr.  | Plans and Service     |
| Alwin Schmidt             | Chief Engineering Draftsman<br>(Mechanical)               | " " "                 |
| Ruth Selsky               | Jr. Clerk-Typist  | Business Admin.       |
| James C. Smith            | Chief Engineering Draftsman<br>(Mechanical)               | Plans and Service     |
| Mrs. Loraine M. Snellings | Jr. Clerk-Typist  | Business Admin.       |
| Helen F. Snitehurst       | Junior Stenographer                                       | Structures            |
| James F. Thompson         | Asst. Mechanical Engineer                                 | Plans and Service     |
| Raymond E. Watson         | Assoc. Mechanical Engineer                                | " " "                 |
| Carl White                | Asst. Mechanical Engineer                                 | " " "                 |
| Lois C. Williamson        | Asst. Clerk-Sten.(Urbana, Ill)                            | Ind. Farm Prods. Res. |



### Separations

|                       |  |  |
|-----------------------|--|--|
| Walter T. Ackerman    | Sr. Research Agricultural Engr.<br>(Durham, N.H.)  | Rural Electrification<br>Plans and Service<br>Administration |
| Rembert G. Allen      | Associate Architect                                |  |
| Sarah D. Bollotin     | Junior Stenographer                                |  |
| Lester A. Brooks      | Und. Scientific Helper<br>(Urbana, Ill.)           | Ind. Farm Prod. Res.   |
| Franklin E. Foster    | Jr. Sugar Technologist<br>(Baton Rouge, La.)       | Carbohydrate Research<br>Business Admin.                     |
| Anne Goldfein         | Senior Stenographer                                | " "  |
| Jeanette G. Goldstein | " "  | " "  |
| Truman E. Hienton     | Principal Research Agr. Engr.<br>(Lafayette, Ind.) | Rural Electrification  |
| John P. Kopp          | Minor Assistant to Technician<br>(Wooster, Ohio)   | Drainage- CCC<br>Farm Land Development<br>(Flood Control)    |
| Otis M. Page          | Senior Agricultural Engr.<br>(Vicksburg, Miss.)    | Reg. Res. Labs.<br>Business Admin.                           |
| Clifford B. Purves    | Prin. Chemist (Cambridge, Mass.)                   | " "  |
| Clara Schwartz        | Asst. Clerk-Stenographer                           | " "  |
| Mrs. Thelma H. Scott. | " " "  | " "  |
| William E. Storey     | Sr. Engr. Draftsman (resigned)                     | Chem. Engr. Research<br>Plans and Service.                   |
| Gerard A. Wagner      | Mechanical Draftsman                               |  |

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### Recent Publications of Naval Stores Research Division

Third Semi-Annual Naval Stores Report on Production, Distribution, Consumption and Stocks of Naval Stores, By C. F. Speh, M.C. 41, issued November 15, 1938.

Lessening the Christmas Tree Fire Hazard. By Martin Leatherman. M.C. 42, issued December 1, 1938.

Process of Manufacturing an Elastic, Porous and Compressible Product, U. S. Patent 2,140,265, issued December 13, 1938, to Martin Leatherman.

Uses of Turpentine and Rosin, by Members of Naval Stores Research Division, M.C. 40, issued December 28, 1938.

Cleaning and Painting Turpentine Cups. By A. R. Shirley. M. C. 43, issued January 14, 1939.

The Composition of So-called Pyroabietic Acid Prepared Without Catalyst, By E. E. Fleck and S. Palkin. J.A.C.S. 61, No. 2, Feb. 1939.

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Bureau of Agricultural Engineering

Recent Articles Relating to Cotton Ginning Appearing  
in Publications Outside of the Department

- BENNETT, CHAS. A. How the cotton gin works. American Cotton Grower 4(8): 13. January 1939.
- - - - - and GERDES, FRANCIS L.- Preventing gin damage to cotton. The Cotton Ginners' Journal 10(5): 7, 10, 18-19. February 1939.
- - - - - and BAGGETT, THOS. L. Fan and piping tests at the United States Cotton Ginning Laboratory. The Cotton Ginners' Journal 10(4): 5-6, 16, 19, January 1939.
- - - - - and GERDES, FRANCIS L. Careful adjustments will prevent gin damage to cotton, experts say. The Cotton Digest 11(12): 5, 12-13, December 24, 1938.
- - - - - and SHAW, CHAS. S. Overhead cleaning drying systems for seed cotton. The Cotton Ginners' Journal 10(3): 5-6, 19. December 1938.
- STAFF OF THE U. S. COTTON GINNING LABORATORIES. The race is not to the swift when cotton is being ginned. The American Cotton Grower February 1939.
- - -

Bureau of Chemistry and Soils

Recent Articles by Workers in the Bureau of Chemistry and Soils  
Appearing in Publications Outside the Department

- BERNTON, H. S. Progress in allergy. The South. Med. Jour 31(12): 1286-1294, Dec. 1938.
- BROTHER, G. H. Plastic materials from farm products. Indus. & Engin. Chem. Indus. Ed. 31(2): 145-148, Feb. 1939.
- - - - - and McKINNEY, L. L. Protein plastics from soybean products. Plasticization of hardened protein material. Jour. Indus. & Engin. Chem. 31(1): 84-87, Jan. 1939.
- BROWN, H. R. Control dust explosions. Safety Engin. 77(1): 24-26 and 28, Jan. 1939.
- - - - - Dust explosion control in industrial plants. The Weekly Underwriter, 140(1): 55-56 and 58, Jan. 7, 1939.
- DAVIS, R.O.E. and SCHOLL, W. Ammoniated peat -- Effect of varying the conditions of ammonia treatment on nitrogen quality. Jour. Indus. & Engin. Chem., Indus. Ed. 31(2): 185-189, Feb. 1939.
- DeEDS, F., EDDY, C. W. and THOMAS, J. O. Studies on phenothiazine. V. Fate of phenothiazine in the body. Jour. of Pharm. & Expt. Therapeutics, 64(3): 250-262, Nov. 1938.
- DETWILER, S. B. Jr., and MARKLEY, K.S. Bibliography on molecular or short-path distillation. Oil & Soap, 16(1): 2-5, Jan. 1939.
- EMMETT, P. H. and SHULTZ, J. F. Oxidation of phosphorus to a pentavalent form by carbon dioxide. Equilibria in the phosphorus-carbon-oxygen system. Jour. Indus & Engin. Chem 31(1): 105-111. Jan. 1939.



- HENDRICKS, S. B. and JEFFERSON, M. E. Structures of Kaolin and talc-pyrophyllite hydrates and their bearing on water sorption of the clays. Amer. Mineralogist, 23(12): 863-875, Dec. 1938.
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